

US4258421:Vehicle monitoring and recording system

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Issued/Filed Dates: March 24, 1981 / March 14, 1979

Application Number: US1979000020622

IPC Class: G06F 13/00; G08B 23/00;

Class: Current: 701/035; 340/870.16; 701/123;

Original: 364/424; 364/442; 340/052.F; 340/870.16;

Field of Search:

364/424,425,431,200,900,442 340/27 R,52 R,52 F,53,201 R 073/116,117.2,117.3 235/92
TC,61 S,61 T,61 V 360/006

Abstract:

A device monitoring and recording system is described which is particularly applicable to on-board vehicle monitoring and recording of operating engine parameters. The system comprises a plurality of sensors for sensing operating parameters of the engine and for generating data signals in response thereto, a data processing unit for receiving the data signals and a portable data link for extracting the processed data. Means are also provided for analyzing the processed data in remote computing means to provide printouts for record keeping, maintenance and diagnostic purposes.

Primary/Assistant Examiners: Atkinson; Charles E.; Chin; Gary

Related Applications:

Application Number ApplDate Patent Issued Title

US1978000881221 1978-02-27

First Claim:

Show all 13 claims

What is claimed is:

1. A vehicle parameter monitoring, recording and analyzing system comprising:

- (a) a plurality of sensors positioned for sensing operating parameters of said vehicle and for generating data signals corresponding to values of said operating parameters in response thereto;
- (b) a data processing and recording device positioned on-board said vehicle and comprising:
 - (i) computing means including a central processing unit (CPU) for processing said data signals;
 - (ii) program memory storage means for storing an operating program for said CPU;
 - (iii) said CPU operating in accordance with said operating program to compare said operating parameter values to predetermined threshold values corresponding to each operating parameter and to select said operating parameter values which exceed their respective threshold values for processing same in accordance with predetermined criteria as stored in said program memory storage means;
 - (iv) data memory storage means for receiving and storing data representations corresponding to said selected and processed operating parameter values from said CPU; and
- (c) power supply means associated with said vehicle for providing power to said CPU, said program memory storage means and said data memory storage means;
- (d) a portable data link comprising:
 - (i) a non-volatile memory of substantially larger memory capacity than said data memory storage means;
 - (ii) power generating means, independent of said vehicle, for operating said non-volatile memory;
 - (iii) means for connecting said non-volatile memory to said data memory storage means;
 - (iv) means for reading the selected, processed and stored data representations from said data memory storage means into said on-volatile memory; and
 - (v) means for disconnecting said non-volatile memory from said data storage memory means;
- (e) a remote computing apparatus comprising:
 - (i) means for reading said selected, processed and stored data representations from said non-volatile memory;
 - (ii) means for analyzing said selected, processed and stored data representations; and
 - (iii) means for printing said analyzed data representations.